

ABSTRACT OF THE INVENTION

A timing circuit for use with transport logic in a network element is provided.

The network element forms part of a data network and the timing circuit includes a timing receiver having a timing input, a timing output, and a selection input, the timing receiver operable to receive one or more timing signals at the timing input and to select a selected timing signal for distribution to the transport logic via the timing output based on a selection signal received at the selection input. The timing circuit also includes a determination circuit that is operable to determine whether the timing circuit is one of a master timing circuit and slave timing circuit, and based on the determination, produce the selection signal. A sync transmitter is also included in the timing circuit. The sync transmitter is coupled to the timing output, the determination circuit, and a communication channel. The sync transmitter is operable to receive the selected timing signal and to transmit the selected timing signal on the communication channel when the determination circuit determines that the timing circuit is the master timing circuit.

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